## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 30 June 2005 (30.06.2005)

**PCT** 

## (10) International Publication Number WO 2005/058605 A1

- (51) International Patent Classification7: B41N 3/03, 1/08
- (21) International Application Number:

PCT/EP2004/053329

- (22) International Filing Date: 8 December 2004 (08.12.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

03104782.2 18 December 2003 (18.12.2003) EP 60/536,358 14 January 2004 (14.01.2004) US

- (71) Applicant (for all designated States except US): AGFA-GEVAERT [BE/BE]; Septestraat 27, B-2640 Mortsel (BE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CAMPRESTINI, Paola [BE/BE]; c/o AGFA-GEVAERT, Corporate IP Department 3800, Septestraat 27, B-2640 Mortsel (BE). VERMEERSCH, Joan [BE/BE]; c/o AGFA-GEVAERT, Corporate IP Department 3800, Septestraat 27, B-2640 Mortsel (BE). VAN DAMME, Marc [BE/BE]; c/o

AGFA-GEVAERT, Corporate IP Department 3800, Septestraat 27, B-2640 Mortsel (BE).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POSITIVE-WORKING LITHOGRAPHIC PRINTING PLATE PRECURSOR

(57) Abstract: A positive-working lithographic printing plate precursor is disclosed which comprises (i) a grained and anodized aluminum support having a hydrophilic surface and (ii) a heat-sensitive oleophilic coating provided on the hydrophilic surface, wherein said coating comprises (a) a hydrophobic polymer which is soluble in an aqueous alkaline developer and (b) a dissolution inhibitor which is a water-repellent polymer and wherein said coating is capable of dissolving in said developer at a higher dissolution rate in areas of said coating which are exposed to heat or infrared light than in unexposed areas, characterized in that the hydrophilic surface has a surface roughness, measured according to ISO 4288 and expressed as arithmetical mean center-line roughness Ra', which is less than 0.40 µm and the hydrophilic surface comprises a salt of titanium, hafnium or zirconium. A hydrophilic surface, which has a low surface roughness and contains a salt of titanium, hafnium or zirconium, is used to obtain an improved sensitivity of the coating with a reduced staining and an increased printing run length.